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From the Publisher

My first words to you, after a long absence, obviously have to be an apology. I never dreamed that it would take me six months after sending out issue 3 to get issue 4 out the door. And to think that my fellow publishers were chiding me for showing them up by publishing ahead of schedule in July!

At any rate, I hope to have a more regular schedule for the last two issues of volume 3. I expect about 3 months between each issue; so, while your subscription won't be as timely as I had planned 15 months ago, you will receive the full amount of issues.

My second word to you is that volume 3, number 6 will be the last *Apple Blossom* published. As is apparent from my late schedule, I'm no longer able to keep up with publishing a bimonthly newsletter. Various family, church, community, and work commitments are just more pressing than formerly, and leave me with little time to write, edit and manage the newsletter. The Apple Blossom Web site will be around for a long time to come, however, and I may publish new articles and software reviews there from time to time, as well as updating and adding articles from the printed newsletter.

Another commitment that takes more time than I originally budgeted is publishing *Hyper Quarterly*, which also runs through the middle of the year. That may or may not continue for a second season, depending on subscriber interest and the ability of our scripting team to continue with the project. But we are very pleased with what has been created so far, and hope to have more exceptionally clever utilities, XCMDs, and stacks available for our subscribers in the next two issues.

In July I attended my first KansasFest. This was a real treat to meet some of the many Apple II users with whom I've corresponded for years via email. The various sessions were fun and instructive. But there was some disappointment for me there as well, as it became clear that it is increasingly difficult for programmers to spend much time bringing new software out for the Apple II. Programming (as I know from my *Hyper Quarterly* involvement) is time consuming, and since time often is money (and the Apple II is not a ready source of money), committing large blocks of time is not likely to happen. Of course, more enthusiastic support from buyers, including payment of shareware fees, would be a great encouragement to the many who continue to work on the Apple II.

As the Apple II, the dean of personal computers, enters its 21st year of existence, development of quality software, the availability of powerful and cheap peripherals, and good writing about the computer continues, albeit at a reduced pace. Inside this issue we interview Max Jones who publishes *Juiced.GS*, whose newsletter is worthy of your consideration if you don't already subscribe. In my estimation, it is probably the finest newsletter ever published for the Apple II, and I will continue to enjoy reading it as long as Max continues to publish it. Cheap, fast hard drives from Alltech Electronics and reasonably priced memory boards make expansion and upgrade attractive. New software expands the utility of our computer. There is plenty of reason to keep our Apple IIs around and turned on.

Apple II Forever!

AppleTalking — Setting up a Network

by Steve Cavanaugh

As the owner of an Apple IIGS, are you missing out on one of the most useful features of your computer—AppleTalk? AppleTalk is the software that lets you connect your IIGS to a network. Part of that software is built into the firmware of your IIGS, and part gets installed from the System disks. If you aren't already using your IIGS on a network, yet have two or more IIGS computers, you may not realize everything a network can do for you. A network can offer you three things: shared printers, shared data storage, and shared application storage. As we go through this article there are a few bits of vocabulary to get down, so we'll take care of that first.

Vocabulary

AppleTalk: the combination of firmware and network software installed by the System installer that enable a device to be networked.

LocalTalk: the actual hardware that is used to connect computers and printers. Apple's original LocalTalk cabling used three wire, self-terminating cables and non-locking LocalTalk boxes, fairly expensive, and limited to runs of 1000 feet total.

Phonenet: a particular type of LocalTalk hardware, originally created by Farallon (now called Netopia, Inc.) which uses regular 4-wire phone cabling to connect devices via Phonenet boxes. Much less expensive than Apple's LocalTalk, and capable of 3000 feet networks.

File Server: A computer set up to share files with other computers (the "clients") over a network.

Shared printers

If you use an ImageWriter II, ImageWriter LQ, or a PostScript LaserWriter (along with certain Hewlett Packard LaserJet models) you can easily share that one printer among several computers. All IIGS computers are network-ready, as are most of Apple's LaserWriters. The ImageWriter II and ImageWriter LQ can be made network-ready by adding a card to the printer (Sequential Systems sells two cards, one a basic LocalTalk card, the other a LocalTalk card with 1 MB of buffer memory. Both cards cost under \$100.00 each). Some HP LaserJets (generally having an "M" in their name, such as the LaserJet 4MV, denoting its target market of Macintosh computers) have built-in PostScript and LocalTalk. Others can have LocalTalk cards installed.

Sharing a single printer, as a small office routinely does, can save you not only the cost of a second or third printer, but also the space those extra print-

ers take up, the cost of printer cables (which can easily cost more than the Phonenet connectors and phone wire), and it lets you put a printer wherever it is convenient. Whereas most parallel and serial connected printers are tethered fairly close to the computers using them, a network printer can be in an entirely different room (or on a different floor).

Shared data

Through the use of a *file server*, you can share data as well. Unfortunately, you cannot use an Apple IIGS as a file server, as there has never been any server software written for the IIGS. However, with any Macintosh from the Plus (the oldest Mac with expandable memory and a SCSI port for connecting hard disks) on up, and System 7.0 for the Mac or newer, you can create a file server to keep all of your data. A Mac Plus can currently be purchased for as little as \$50.00, while an SE/30 (which includes an internal hard drive, a Super Drive, and a much faster CPU) can be purchased for \$249.00 (from Sun Remarketing, 800-821-3221). System 7.0.1 is freely downloadable from most online services and the Internet, including Apple's web site at:

<http://www.apple.com/support/>

Whether you have a household with two computers or a small office with a dozen, having a central location for data can be valuable in several ways. Backing up data is easier, because it all resides in one place. No matter which computer you sit down at, you can access the information you want, because it resides on the central server, and not on the computer that someone else is tying up at the moment. And if the data needs to be shared, whether its your Christmas card list or a customer database, it will be available to everyone who needs it.

Shared applications

You can also use your file server to store applications. If you have a minimal IIGS system with a small hard drive, you can store programs on the hard drive of the server, and run them (if they are GS/OS programs) right from the server. I've done this with AppleWorks GS and HyperCard, and many other programs can be operated this way as well.

There are even some programs on the IIGS that are designed for network use. The best known is called CGS, a small chat program for networked

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Talking II...Max Jones

by Ryan Suenaga, M.S.W.

Max Jones is no stranger to most Apple IIGS owners these days. He publishes the respected Juiced.GS newsletter, which has won over 300 subscribers among the power users of the IIGS community. Here's his story:

The Apple Blossom (TAB): How did you get started with the Apple II?

Max Jones (MJ): I bought my Apple IIGS in the fall of 1989. I had been using a Macintosh periodically for special projects at work, so I knew wanted an Apple product. I had always been fond of the Mac desktop's look and feel, and wanted something like it for my first home computer. Trouble is, I hated that small Mac box and detested the black and white screen. A teacher at a local school recommended I visit her classroom and take a look at her IIGS. After watching the tour disk and playing with various features, I was hooked. I purchased a ROM 3 IIGS from ComputerLand a short time later, and I've been happily computing with the Apple II ever since.

TAB: I realize you've worked with other computer platforms, as a lot of other Apple II enthusiasts have; what kinds of strengths and weaknesses does the Apple IIGS have versus other platforms?

MJ: Well, in its day, the IIGS was as powerful as other computers. But what made it special was the beautiful color monitor and the presence of the Ensoniq chip for sound. Although current technology far surpasses what the IIGS offers, it is still a useful computer because it can do so many things, and do them well. What's more, a close-knit community made up of knowledgeable people has grown around the IIGS and other Apple II computers. Even though other platforms sport faster processors, larger hard drives and more memory, the strength of the Apple II community renders the more technical assets of those platforms meaningless.

TAB: I think you've made a lot of friends in the Apple II community in the last few years with your efforts online and in print. Can you tell us a little about that?

MJ: I wanted so much to be online years ago, but I live in a rural area that, until recently, had few options for those of us who wanted to venture into telecommunications. When I decided in 1995 to start an Apple IIGS newsletter, that provided the impetus—and the funds—for me to get online. The reception I received online was nothing short of tremendous. Not only did the community embrace

Juiced.GS, but I began to make lots of new friends as well. And that was really the best part. But there are still lots of Apple II users who are not yet online, and I get notes and letters from them in the mail. I've even had a few phone calls, which I've really enjoyed. I try to answer as much of my mail as I can, and I publish some of the letters I receive in the newsletter. The people in the Apple II community have really made this a special experience, and I'm having the time of my life.

TAB: Like many other Apple II companies and individuals these days, you maintain a presence online, with numerous email addresses and a web page. How important is being online with for the Apple II enthusiast?

MJ: Although there are Apple II users who, for various reasons, are not online, I feel being online is more important than ever. It's easy to get discouraged with an older model computer when you have no one to discuss things with, and being online helps you learn more about this marvelous machine we all love and keeps you closer to the pulse of current development efforts. Being online with an Apple II is like being involved in a worldwide user group meeting, seven days a week. You just can't get that kind of contact in most communities these days because user groups are so small, and many have disbanded. But things are very active online.

TAB: Do you have some suggestions for someone just getting started with their IIGS? Some favorite hardware, software, vendors, publications, online services, or other resources?

MJ: To really enjoy a IIGS, you have to become a power user, and I strongly recommend getting online. That means putting at least 4 megs of RAM, a nice sized hard drive, and an accelerator card in your computer. Most important, get a fast modem. They're not too expensive anymore, and they will make your online experience more enjoyable. A CD-ROM drive is also a worthwhile investment if you want to use your IIGS with an CD encyclopedia. If someone is in the market for a hard drive, I would also recommend taking a strong look at the Focus Drive from Alltech Electronics. It's an internal drive, and the price is reasonable. You don't even need to buy a SCSI card to use it, although you will need that SCSI card if you intend to use a CD-ROM or a Zip Drive somewhere down the line. When going online, I would recommend Spectrum for telecommunications, and GraphicWriter III 2.0 for desktop publishing. In fact, Seven Hills Software,

publisher of Spectrum, GraphicWriter and many other fabulous IIGS programs, is an important vendor all around. I'm also quite pleased with Alltech and ByteWorks. In terms of publications, I think a user should probably subscribe to all of them. We all offer something different and complement each other's efforts. As far as online services go, there's no question: Delphi is the place to be. Its Apple II forums are growing by leaps and bounds and have far surpassed Genie in message traffic.

TAB: What have you learned by being so involved with the Apple II community as of late? Any stories to share?

MJ: I've learned not to ride in a car with you in Kansas City.

TAB: What do you think of the recent efforts in telecommunication with the Apple II, such as Spectrum Internet Suite (SIS) and Marinetti?

MJ: I think telecommunications development is keeping interest high in the IIGS. I know there are users out there who have been tempted to move to a more modern platform for the simple reason that they can do more things when they are online. Sticking with the IIGS has meant limiting their options, and some users grow weary of that. SIS and Marinetti have convinced users to hang on a little longer and keep on using the computer they know and love. It helps to know there are people such as Richard Bennett, Ewen Wannop and Geoff Weiss out there who have the skill and desire to keep developing this cool stuff for all of us. They're doing it because they love to do it, and we owe them a debt of gratitude for their efforts.

TAB: How about the A2 Forum on Delphi, which has been building steam at a rapid pace as of late?

MJ: Activity exploded last summer when the Spectrum offline reader Crock O' Gold was released, and momentum just kept building when Delphi opened its forums, including the Apple II forums, to free Web access. What makes Delphi special is that it now has the potential to become the absolute center of the Apple II universe. There are virtually no restrictions to any Apple II user getting there, as long as they are online. People are crawling out of the woodwork to participate in the Delphi forums, and it's been a joy to watch.

TAB: You were on the planning committee for this year's KansasFest; what was that experience like?

MJ: Well, I really didn't do much. I wrote a couple of press releases and designed an advertisement. Other than that, I just played a support role and

tried to help out Cindy (Momma Cheese) Adams whenever she needed it, which wasn't very often since she always has things under control.

TAB: How about being at KansasFest itself?

MJ: Kfest '97 was my second consecutive trip to Kansas City. It took me a few years before I was able to make the journey, but now that I have, I don't ever intend to miss another. It's fun, entertaining and informative. And it gives you the opportunity to spend time with friends you've made online. It is awesome experience that is beyond description, except that all of us writers keep trying to describe it. I'm not sure anyone's captured the true spirit of Kfest yet. You have to be there to know how it feels.

TAB: If someone were to say, "Well, I'd like to go to Kfest some year, but maybe not this one," what would you say back?

MJ: I would politely tell them that if they don't get off their duff and go now, it may not be there when they get around to it. Let's face it, Kfest won't last forever, even though we'd like for it to. I don't think the festival is in any immediate danger of ending, but if people don't make an effort to get there and participate, well, the day when there is no Kfest will arrive much sooner.

TAB: For our readers who aren't familiar with it, could you tell us a little about your publication, Juiced.GS?

MJ: OK, the Blatant Plug sign is up, so here we go. Juiced.GS is a quarterly, printed, IIGS-specific publication. We are halfway through our second year and now have more than 300 subscribers around the world. A 1997 subscription is \$14, and the complete set of 1996 back issues is available for the same price. For those who want to know more, they can visit my Web page:

<http://users.ids.net/~kerwood/Juiced.GS>

Or they can e-mail me at juicedgs@delphi.com. Otherwise, my snail-mail address is 2217 Lakeview Drive, Sullivan, IN 47882. Each issue has at least 20 pages, but most have been 24 pages so far. There is certainly no shortage of topics to write about, and we like to present the material in a compelling way. And the entire magazine is published on a IIGS, so subscribers can see for themselves what their wonderful computer is capable of.

TAB: What kind of influence has the Apple II community had on Juiced.GS? And what kind of influence has Juiced.GS had on the Apple II community?

MJ: The outstanding support and encouragement *Juiced.GS* has received from the Apple II community has made me want to keep my newsletter going and improving. I hope that the presence of *Juiced.GS* has made owning a IIGS a little more fun and fulfilling in the past two years, and made users want to stick with their computer for a little while longer.

TAB: What do you think the Apple II community really needs to survive and flourish in 1998 and beyond?

MJ: The online community needs to grow and cluster around Delphi's Apple II forums. If we can reach critical mass online, then the few developers that remain will feel it is worth their effort to keep creating software, and perhaps a few new programmers will emerge as well.

TAB: If you could be remembered by the Apple II community for just one thing, what would it be?

MJ: Well, I plan to be around for a while, so I would like for them to remember me when it comes time to renew their subscriptions to *Juiced.GS*. Otherwise, I'm still in the process of making my contribution to the Apple II community, so it's too soon for me to worry about how I would like to be remembered. Of course, I definitely don't want to be remembered as the guy who got lost with you while you were trying to find the Kansas City airport and ended up in the Black Hills of South Dakota instead. That's why I avoided getting in the car with you during Kfest '97.

Software Reviews

Bernie II the Rescue

Author's note: We tested and reviewed Bernie II the Rescue version 1.0.1. Version 1.2, with improved printing, support for programs needing option key sequences, and other improvements was released during the week of January 20, 1998, too late for our review, but not for you to try out.

What is Bernie?

Bernie II the Rescue is a Power Macintosh program from F.E. Systems that emulates an Apple IIGS. Using Bernie you can create ProDOS disk images (data files that act as disks) onto which you can install your software, and then you can run your Apple II software on your Power Macintosh.

Bernie II the Rescue was created by F.E. System's Henrik Gudat, who also created Hermes/ShadowWrite, Space Fox and other Apple II utilities. The software is shareware, and registration costs \$25.00.

Bernie has been upgraded several times, and new updates are in the works, even as this is written. In that sense, Bernie is incomplete; but even in the present version (1.0.1) it enabled me to use almost all GS Software that I normally use on my home IIGS, including AppleWorks GS and HyperCard IIGS.

Why an emulator?

Why would someone use an emulator when they could use a real IIGS? Well, I have been using Bernie principally at the college where I work part-time on weekends. As a lab supervisor, I often have long periods of time where I don't have much to do (of course there are other times when I feel like I'm teaching a full-blown course on using computers),

and having access to Bernie on the Power Mac 8100 there allows me to work on HyperCard IIGS and test out other IIGS software. Others might want the emulator for times when their IIGS needs repair. And still others, faced with replacing a IIGS that has broken down, will find the cost of Bernie's registration a lot easier to swallow (if they already have a Power Macintosh) than replacing a blown IIGS monitor or cpu.

The other advantages of the emulated IIGS environment is that on a faster Power Macintosh, the speed of the emulated IIGS is also faster...and in our present situation of hard-to-find accelerator cards, that's a big bonus. In addition, if you have a Power Macintosh, Bernie is one piece of the puzzle that lets you run just about every operating system there is on one machine. There are emulators to use on a Mac for Windows 95, Windows NT, Unix, Commodore 64s, and Ataris).

How does it perform?

In using Bernie II the Rescue, I have tried it on two different Power Macintosh 8100s as well as on a PowerBook 1400. Bernie booted with an assortment of desk accessories and inits, as well as running almost every program I used with it. There was a problem using HyperCard initially, because the option key (widely used in HyperCard for accessing scripts) was not working properly, but a recent update solved that problem. Other programs, including AppleWorks GS, ShrinkitGS and Teach, all worked fine.

Bernie does have limitations, including restricted printing, incomplete support for some Apple II video modes, no access to the Mac's serial ports (hence no telecom programs), and a bit of a learning curve (if you are unfamiliar with disk images). However, sup-

port has been good, including emails, a constantly updated web site, and a new mailing list (see below for more details).

How does it work?

The first step to using Bernie, after downloading it, is to get an Apple IIGS ROM image. (The ROM of an Apple IIGS is software contained on a chip inside the computer that is needed for operating the computer.) Bernie also needs the ROM, and includes instructions for making a *ROM dump* (in which the contents of the ROM chip are put into a file you transfer to your Mac); the F.E. Systems Web site also has a link to another Web site where you can download the ROM image. Next, you must create a hard disk image on which to install your software. (A disk image is a computer file that is an exact duplicate of a disk.) Bernie allows you to create the hard disk image (or you can use the Mac shareware program *ShrinkWrap* or Apple's own *DiskCopy*), and then you can boot your new IIGS with the system installer disk and begin installing the software. You can use actual Apple II ProDOS disks in the Mac disk drive, or you can download the images from Apple's web site (<http://www.apple.com/support/>) and mount the images and install from there. Disk images, which get mounted in RAM, are a lot faster, so I would recommend using those if possible. After you have installed the software, you use a menu command from within Bernie to set this new hard drive as your startup disk. Once you have paid your shareware fee and received a registration code, your preferences will be saved; until then your preferences are not saved, and Bernie is limited to 30 minutes per session.

Once your hard drive is set up, a typical session with Bernie involves starting the emulator, then booting up your IIGS. Once you see the IIGS desktop in the emulator window, you use your IIGS programs as you always have. While I am partial to Apple's Finder, I have read reports of ProSel 16 (a Finder alternative) also working fine with Bernie, and expect that Wings (the program starter that comes with Salvation Supreme) would work as well.

As mentioned above, the faster your Power Macintosh, the faster Bernie's emulation environment will run. In addition, the more RAM that you allocate to Bernie II the Rescue, the more is available to your IIGS.

The mail list

F.E. System's primary support is their new mail list. Begun in mid-January, the list quickly began receiving more than 20 posts per day. To join the list you send a message to the listserve which registers you as a subscriber, and then as messages are received they are sent back out. This can be a bit overwhelming, so there is also an option for setting

the list to digest mode, in which all messages for a day are collected in a single file, which is then mailed out to you. The mail list postings are also collected and archived on F.E. System's web site.

To subscribe to the mail list, send an email to:

`listserv@ncisc.org`

and in the body of the message type:

`SUBSCRIBE bernie Your_FirstName Your_LastName`

replacing "Your_FirstName" and "Your_LastName" with your actual first and last names. If you wish to subscribe to the digest, then after you get an email informing you that your subscription has been registered, send another email to the same address, and in the body of the message, type:

`set bernie digest`

It doesn't matter what you put in the subject of these email messages.

Obtaining Bernie II the Rescue

To download Bernie II the Rescue, visit the F.E. System's Web site at:

<http://www.magnet.ch/emutech/>

and follow the instructions you find there. The program is not an especially large download, and once installed it will give your IIGS programs a new home that should last for years to come.

SlixSecurity

I have often wanted a security program for my IIGS, something that could protect files and programs from deletion while letting me use the Finder to which I'm accustomed. My need for security of this type stems from sharing our computer with our three children, with occasional use by their friends and cousins. I'd like to avoid having the hard drive wiped clean, as it once was by my daughter Molly when she was two and dabbling in Dazzle Draw.

Thus it was with great interest that I learned about Bret Victor's new software, SlixSecurity. In the Read.Me file that accompanies the program, Bret writes:

"How often have you thought about filing your entire Iigs under "Trash" and buying a Mac, along with some cheesy "At Ease"-ish security software to prevent the unwanted intrusions by your progeny. But you held on, in the hope that Slixter, after already ripping off every other software idea in the known universe and porting it to the Iigs, would eventually get around to this one."

Well, he has and has done a great job. For the bargain price of \$10.00 you get a security program that allows you to create a selection of software for others to use, while giving you, via a login password, access to all of your computer's resources.

How it works

SlixSecurity is a New Desk Accessory. Installing it is as easy as dragging the file to the System Folder, allowing it to be installed in the Desk.Accessories folder and rebooting. Upon rebooting, you select SlixSecurity from the Apple menu, put in your administrator's password, then configure your settings. These settings include controlling non-administrators' access to desk accessories and Finder Extras and allowing copying and moving of files and folders within the SlixSecurity folder. Security can also be turned on or off from within the settings panel at any time. All of these settings can be configured via simple radio buttons, as shown in Figure 1.

Once installed, SlixSecurity will present a log-in screen after booting into the Finder. Typing in the correct password puts you in the Finder, while an incorrect password gives an error message and a chance to try again or click on the "Continue" button.

The SlixSecurity folder is a folder you create and name (with the name of the program) in the top level of your boot disk. Anything you place in this folder is available to people who don't have the password at login time. In fact, SlixSecurity conveniently opens this folder up once the IIGS boots into the Finder. This folder doesn't need to contain actual programs, of course; aliases created with the EasyMount Finder Extra work perfectly for this purpose. While SlixSecurity hides any Finder Extras, they still work...it is only the Finder Extras menu that is not available when security is on.

For the user who boots up in SlixSecurity, the Finder looks a bit different: the Trash Can is gone, and disks that are double-clicked don't open. Only items inside the SlixSecurity folder can be accessed. With Desk Accessory permission denied, the only NDA available is SlixSecurity; this allows the administrator to get in and turn it off if needed.

Foolproof

SlixSecurity may be foolproof, but it's not proof against the savvy. A shift boot will disable the NDA, along with all others, and thus give someone without the password access to the Finder. However, this is not likely to be the type of person that you are protecting your computer from.

Pay those shareware fees

SlixSecurity is shareware, and as noted above, the price is only \$10.00. If you've ever had to reconstruct a hard drive after someone inadvertently



Fig. 1 The SlixSecurity settings window, which allows you to customize the behavior of SlixSecurity on your IIGS.

deleted some (or all) files, you'll recognize this as a bargain price. Similar software on a Mac or PC might cost \$50.00 or more. Until you pay your shareware fee, SlixSecurity displays a reminder box every minute or so. I didn't even bother installing it until I had my registration code from Bret, as that constant dialog box would have been far too irritating. On the other hand, it would likely be even more irritating to Bret to create such a nifty utility and receive only \$5.00 from the entire IIGS community for it (as he writes has been the case for his other two shareware endeavors).

SlixSecurity can be downloaded from Genie, Delphi and Bret's web site. Once you send the shareware fee to Bret, he will mail or email you the registration code which unlocks SlixSecurity and does away with the reminder box. Bret's address is:

Bret Victor
19253 Parkview Rd.
Castro Valley, CA 94546
web site: <http://www.cco.caltech.edu/~bret>

SuperConvert 4.0

After almost two years of waiting, the update of SuperConvert by Seven Hills Software has arrived. SuperConvert is Seven Hills's graphic conversion utilit. It has been updated with new file format translation capabilities, bug fixes, speed improvements and a new help system. The cost for an update from version 3.01 is \$20.00. If you want to buy it new, then the cost is \$39.95. Version 4.0 retains the familiar interface that IIGS users have come to know since Jason Harper first released his shareware SHRConvert in the late 1980s, but it has been tweaked with new icons and pop-up menus to speed working with images.

Interface

SuperConvert is a 640 mode desktop program, with menu bar and windows. A bug that afflicted the earlier version which prevented use of New Desk Accessories has been eliminated, so that I was able

to write this review in Hermes while using the program. Of course, since it is a graphics program, it can switch into 320 mode when required to deal with pictures in that format.

SuperConvert reveals some very good attention to detail. The Load (Open) and Save As dialog boxes remember the last directories used, and keeps them separate (so you can load from a floppy disk, for instance, and save to a folder on your hard drive) without having to constantly re-navigate your directories.

When the program opens, it presents three windows: Load (by Computer Type), Load (by File Type) and Save (by File Type). Room is left for a window to display an image. When a computer type is selected (Apple II, IIGS, Atari ST, Amiga, Macintosh, Unix, IBM, Universal) the possible formats for that type of computer are listed in the Load by File Type window. Information on each format is available by selecting the type and clicking on an Info button in the window.

The image window sports three new pop-up menus that allow you to change the palette used to view the image, to change the magnification of the image, and to switch between selection mode and pixel-peek mode (which gives you precise data for the location of each pixel in an image).

Conversion

The heart and soul of any utility like SuperConvert is its ability to convert graphics accurately and quickly. The new version is much quicker than the previous version (the documentation says 20% faster in some cases, and my own use bears this out), and converts a wider range of graphics than previous versions. New to this version are the following formats (and their native platforms): BMP (Windows, OS/2), JPEG (Windows, UNIX, Macintosh, Web), PNG (Web), Dream-Graphix (IIGS), 3200 color pictures (IIGS), black & white Works of Art (Apple II), and New Print Shop, as well as some other less well-known image formats from various computers.

Revised and improved translations are available for PCX (Windows, DOS) and MacPaint (Macintosh). In fact, the only major graphics format that is missing is TIFF, which is handled fairly well by Prism (by New Concepts), Quick Click Morph and TIFF Reader (by The Byte Works) and somewhat less well by Convert3200 (by Brutal Deluxe). Despite SuperConvert's inability to open this format, it can save TIFF files for transport to other platforms or programs that handle it. Prior to the release of SuperConvert 4.0, the only way to view BMP pictures on a IIGS was with Convert3200 by Brutal Deluxe. And while two freeware JPEG viewers are available to IIGS users, neither can save to disk, as

can SuperConvert. PNG graphics (a new format designed to replace GIF files on the World Wide Web) are so new that very few Macintosh or Windows programs support the format; no other IIGS programs do to the best of my knowledge.

There is a mystery in the conversion list however, called BabelFish. The help file refers to this as a Seven Hills technology that allows an image to be opened even when it is of an unknown format. Trying to use this option, however, results in an error message. There is also an option to save as BabelFish, but this likewise does not work. This could be a hopeful sign that further work will be done with SuperConvert.

Putting the Conversions to Use

How useful are these new graphics formats? Very! There are many images being posted to the World Wide Web daily, usually in GIF or JPEG format, although PNG will become increasingly common in 1998, and these images are now viewable on an Apple IIGS. While many Web page images are gratuitous, and often significantly clog the data pipeline for users of graphical systems, there are still many useful images: weather maps, photographs of people and places, technical drawings and diagrams, etc.

In addition, most Apple II users probably have looked in envy at the digital cameras flooding the marketplace in the past year, and sighed that they couldn't use one of these with their IIGS...now they can! The Sony Digital Mavica cameras (two models are available, at approximately \$500 and \$700 a piece) use standard MS-DOS formatted high-density disks to save its JPEG format images. If you have a SuperDrive, Blue Disk or Floptical drive, you can open these images with SuperConvert and save them to your favorite IIGS format for display on your computer or printing within a program like GraphicWriter III.

I had been hoping for just such a breakthrough for the IIGS world when I saw the Sony cameras demonstrated at MacWorld/Boston in August. A friend from work has one of these cameras, so I had him snap a couple of photos and save them to disk, then brought the disk home so that I could try them out with SuperConvert. The resulting conversions aren't the best graphics you'll have ever seen (JPEGs, after all, record millions of colors, while even 320 mode IIGS graphics only have 16 full colors) but they do allow you to get some use from the new breed of cameras.

Help Overhauled

The help system has been completely overhauled, and sports an attractive, easy to navigate interface. Home, Previous, Next, and Back buttons at the top of the help window, along with buttons embedded

within the help that jump to related sections, make this perhaps the best help system (other than HyperCard IIGS) that I have seen in a IIGS program. Of course, this is what we expect from the company that brought us the !Help! system last year.

Other uses for SuperConvert

SuperConvert has a few other tricks up its sleeve. In addition to converting graphics, it has an enhanced printing mode that gives very nice print outs of graphics on my LaserWriter, with 16 full shades of gray in place of the 4 dithered shades I would see using the standard printing routines. In addition, this enhanced mode allows you to place the picture where you will on the page, and add a caption if you like.

SuperConvert can also print out a sampling of all of the fonts installed on your system, in all the installed sizes, as well as key charts for individual fonts in a user-specified size; and the program can print banners with one or two lines of text, each line being in a user-determined font, size and style.

Problems

There are certainly areas that need improvement: conversions are still limited to palettes of 16 colors, even though the IIGS's 320-mode allows for 256 colors; some conversions are not as clean as they could be; and the TIFFs saved from the program (not to mention the lack of opening TIFFs) are not always compatible with other systems — I was unable to import a TIFF from SuperConvert into Quark XPress, a problem I had not had with the previous version.

Conclusion

SuperConvert has long been one of my favorite and most used programs, and this update, though long in coming and not without some problems, is definitely worth the upgrade price.

The new availability of JPEG and PNG graphics, however, makes this a unique program in the IIGS world. If you have any need to work with graphics, then you need SuperConvert. It is well worth the price. To get SuperConvert send a check or money order to:

Seven Hills Software
1254 Ocala Rd.
Tallahassee, FL, 32304-1548

or call them with your credit card number at: 904-575-0566

MUG

On occasion, no matter how Apple-centric your computing habits, you may need to exchange data with a Windows or DOS PC. This can entail all sorts

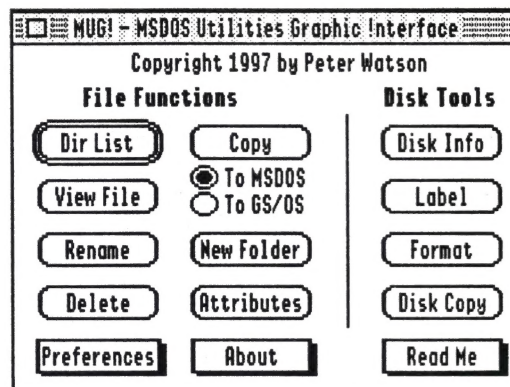


Fig. 1: Peter Watson's new NDA, MUG.

of problems—text files get saved differently, the standard fonts used are different, even the method of low-level formatting used on floppy disks is different. Added to these difficulties, there isn't an Intel-based PC made that can read an Apple II 800K disk.

Fortunately, there is hardware that allows your Apple II to read DOS 720K and 1.44MB disks, as outlined in my article "The IIGS DOS-compatible" in *Apple Blossom* V1N4. I was fortunate enough to pick up a floptical drive when Tulin Technology was having a clearance of refurbished drives, and thanks to Apple's MS-DOS FST (file system translator), included with System 6.0.1, I could read MS-DOS disks and take data from them.

But what if I wanted to give something back? Tough luck—Apple's FST is read-only.

That's why I was excited to learn about Peter Watson's MS-DOS utilities a couple of years ago. While it had a command line interface, it did allow a person to format and rename DOS disks, as well as copy files to and from those disks. The problem was, I could never remember the commands, since I didn't have a need to access MS-DOS disks very frequently. Besides, I didn't get a IIGS in order to use a command line interface!

And so it was even more exciting when, during July's KansasFest, Joe Kohn showed me Watson's latest version of the utilities, called MUG (MS-DOS Utilities—Graphical version). Using MUG, there's no need to recall commands—simple mouse clicks on well-defined buttons activate the routines that MUG uses to format and rename files and to copy files to and from MS-DOS disks. MUG can even be set up to correctly save text files in the MS-DOS format (line feeds and carriage returns at the end of every line—as opposed to Apple's method of carriage returns at the end of paragraphs only, or the UNIX method of line feeds at the end of each line).

MUG is not a particularly large file (146 K) nor does it use a lot of RAM. It worked beautifully with my floptical drive to access 1.44MB disks, and with

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Apple IIGS computers that shows up as an NDA (new desk accessory) in your Apple menu, and when activated, opens up a split screen that allows you to type in messages which are then visible throughout the network. When you activate CGS on your computer, it sends an alert message to the other IIGS computers on the network, so that other users know to open up the program.

Setting Up your Network

Setting up a network requires three basic tasks: installing system software, running cabling, and setting your control panels properly. If you are including a Macintosh as a file server, there are similar tasks on that end as well.

Installing software on your IIGS

The first thing to do is get out your System 6.0.1 System disks. You'll need the Install, Tools1 and Tools2 disks in order to update your hard disk to use AppleTalk. Several drivers, initialization files, control panels, and other files will be installed into your System folder. Among these are the AppleShare FST, the AppleShare, NetPrinter, Namer, and Network control panels, and the AppleTalk driver and any printer drivers you need.

Insert the Install disk and run the installer program. After a few moments, you will see the “Easy Update” screen. Click on the “Customize” button to proceed to the next step.

In the Customize screen, you get to choose which system files you wish to install. You will want to

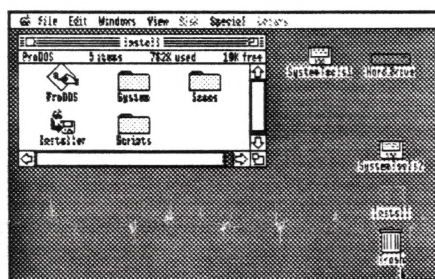


Fig. 1: Using the Installer on the Install disk from System Software 6.0.1.

install "Network: AppleShare"; "Network: Printer Namer"; and depending on your printer, "Network: AT ImageWriter II", "Network: AT ImageWriter LQ" or "Printer: LaserWriter". Keep in mind that if you have a networked LaserJet, you will be using the LaserWriter driver to print. Once you have made your selections, click on the "Install" button, and the installer will place the needed files into your system folder. As it requires other disks, the installer will prompt you to insert them in your disk drive.

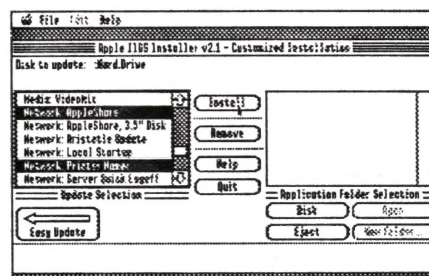


Fig. 2: Custom installation of network components.

Once you have finished installation, you will have to restart your IIGS.

Configure the slots

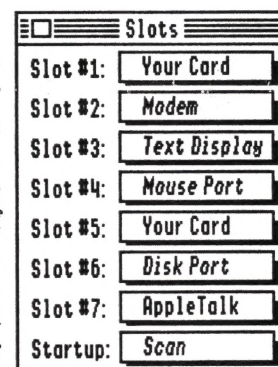
There are two different procedures for configuring your slots, depending on whether you have a ROM 01 or ROM 03 IIGS (you can see the ROM version at the top of your screen during start up). If you have a ROM 01 IIGS, set Slot 7 to AppleTalk, and either Slot 1 or Slot 2 to your card (slot 1 corresponds to the printer port, slot 2 to the modem port) depending on which port (printer or modem) you use for your network cable. Regardless of which slot you use, you do not need to lose use of that slot...if the slot is set to "Your Card" you can still install a hard disk controller there (I have my RamFAST in slot 1, which is set to "Your Card", while slot 7 is set to "AppleTalk"). However, you will not be able to put a hard drive controller or internal hard card into slot 7. If you do have a card in that slot, you will need to move the card. If that is the case, you will also need to reconfigure the Startup Slot from "Slot 7" to "Scan".

If you have a ROM 03, slots 1 and 2 can be set to "Printer", "Modem", "Your Card" or "AppleTalk". Set the appropriate slot to AppleTalk.

Note that only the IIGS supports using either port for AppleTalk. If you include a Macintosh on your network, you must use the printer port for networking on the Mac.

String 'em up

Finally, after installing the software, hook up the wiring. If you use Phonenet (my recommendation) you will need a Phonenet box for each computer or printer, and phone line to connect each device. The first device and the last device must have a terminator in one of the Phonenet RJ-11 (telephone) sockets. A typical set up can be seen on the next page in Figure 3.



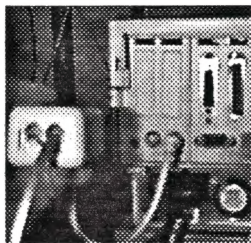


Fig. 3 The back of a IIGS with a Phonenet connector plugged into the printer port.

Plug one box into each device, with a wire between each box and a terminator in each end, and you will be ready to network.

Now, what are those control panels for, anyway?

The *AppleShare* control panel allows you to connect with File Servers. If you don't have a Macintosh as part of your network (or a Windows based computer running Miramar Systems' *MacLan Connect*) then you don't need to use this. If you do have a File Server, then opening this control panel will give you a list of all available File Servers. You double-click to log on to a server, then type in a name and password, much as you would do to access Delphi or Genie...although you can set up your server to allow logons by Guests (people without specific names and passwords). Once you have logged on to a server, you can choose which volumes (disks) on that server you will mount on your desktop. If the server has two or more volumes being shared, you may select from one to all of the volumes. Beside each volume name is a checkbox. Checking the box is not needed to mount the volume...rather, checking the box will automatically mount the volume at startup the next time you boot your IIGS.

The other most frequently used control panel is the *Net Printer* control panel. This allows you to connect with any LaserWriter, ImageWriter IIs or ImageWriter LQs you might have on your network. At this time there are no AppleTalk compatible drivers for Hewlett Packard DeskWriters (almost all of which do have built-in LocalTalk) or for other LocalTalk printers. Hewlett Packard LaserJets which have built-in LocalTalk (most with an "M" in the name, such as the LaserJet 4ML) can be used with the LaserWriter driver.

Another control panel you'll probably have at least one occasion to use is the *Printer Namer*, which allows you to name your printer so that it shows up in the control panel as something more identifiable than "ImageWriter II". If you are in a classroom, for instance, with two or more printers, it is very useful to give each printer a distinctive name.

Limitations

The first limitation to be aware of has already

been mentioned: network length. If you are using Apple's LocalTalk cabling, the maximum network length is 1000 feet; if you are using Phonenet or a derivative you may extend the network over 3000 feet.

Regardless of the type of cabling, the maximum number of devices allowed on a LocalTalk network is 32 (printers and computers combined).

If you are using a Macintosh as a file server, the version of File Sharing you use determines the number of simultaneously connected computers you can have. Mac System 7 File Sharing supports 10 users at a time; AppleShare 2.0 (which runs under Mac System 6) supports 50 users. AppleShare 3.0 (which runs under Mac System 7) supports 120 users, while AppleShare 4.0 supports 150. The newest version of AppleShare, IP 5.0, supports 250 simultaneous connections.

Most home users will find that the Mac's System 7 filesharing is sufficient for setting up a File Server. In order to set up File Sharing on the Macintosh side, there are three steps: Creating a user account, turning on File Sharing, and sharing a particular disk (or folder).

To create an account on the Mac, open the Users & Groups control panel, and select "New User" from the File menu. An icon of a head will appear in the Users & Groups window, and you rename the icon to the user name for the new account. Double-click on the icon to display a dialog box that lets you assign a password.

To turn on File Sharing, use the Sharing Setup control panel, and click on "Start".

Finally, click on your hard disk icon (or a folder if you wish to restrict sharing) to select it, then choose "Sharing..." from the File menu, and click in the check box beside "Share this item and its contents". You're now on your way to sharing files.

If you do use AppleShare as your file sharing software, versions 2.0 and 3.0 support Apple IIs booting over the network (where most of the Apple II System Software is actually on the server, not a local disk). Version 4.0 and above do not support Apple IIs booting over the network, but will support Apple IIs for file sharing.

Conclusion

If you have an Apple IIGS, you have powerful networking software built in that easily allows you to share printers, and — with the help of a Macintosh file server — files. This connection can be further extended (which we hope to cover in a future article) to PCs and UNIX computers, allowing you to link whatever computers you have in your home, classroom or office into a network that lets you efficiently share data and resources.

Some of the information for this article was researched at Apple's Tech Info Library (<http://til.info.apple.com/>).

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my ZIP drive to access MS-DOS formatted Zip disks (which hold nearly 100 MB).

In order to write to high density floppy disks, I simply inserted the disk in my floptical drive, where the disk appeared on the desktop (thanks to the installed Apple MS-DOS FST). Using MUG, I selected Copy and copied a file from a folder to the mounted disk. Of course, you still cannot save directly to an MS-DOS floppy disk from an application but you can save onto a ProDOS or Mac partition, and copy from there. Formatting a disk is also done with a simple mouse click. Extensive file and disk information is also available from within the Desk Accessory.

Using MUG with a Zip disk (or with a SyQuest or EZ-Flyer, etc.) was a bit more complicated. Because Apple's MS-DOS FST does not recognize media other than high density floppy disks, the Finder rejects any inserted Zip disks. In order to use MUG in this case, all that is needed is to exit the Finder by launching some other program that does not poll the disk drives, such as AppleWorks GS (it must be a IIGS desktop program, of course, so that you have access to the Apple menu). Once in AppleWorks GS, I inserted the MS-DOS formatted Zip disk I had borrowed from a friend, opened up MUG and was able to copy files back and forth with ease.

MUG is shareware, and costs \$20.00 if you pay by check, or \$15.00 if you send cash, as that saves Mr. Watson money conversion charges. Once your shareware fee has been received, he will send you a registration code which takes away the reminder alert that pops up whenever you try to use the unregistered copy of MUG. MUG is available on Apple II FTP sites as well as on Delphi and Genie. Previously registered users of the MS-DOS Utilities can upgrade to MUG for \$5.00 (this includes BlueDisk owners). Registration includes any future

updates for free. Send your shareware payments to Mr. Watson at:

*Peter Watson
PO Box 493
Doncaster Vic 3108
Australia*

If you have further questions, you can email him at:

paw@acslink.net.au

End Notes

Floptical Drives

One of my most used IIGS peripherals is the Tulin Floptical drive. A floptical drive is a SCSI device that can read special 21 MB floptical disks, or regularly formatted 1.44 MB high density floppy disks. I use it to read Mac and MS-DOS formatted high density disks with my IIGS, which makes transferring data easy when network transfers are impossible. Recently my floptical flopped, however, and ceased working.

Tulin Technology, which provided several useful products to the Apple IIGS world, quietly went out of business last year. I was pleased to learn, however, that one of the former employees, Wing Cheung, continues to use his specialized skills to repair Tulin floptical drives, as well as to sell new and refurbished flopticals and IIGS and Mac SCSI drivers.

If you are interested in a floptical drive for the IIGS, or need repairs or to get the IIGS SCSI driver (which is reputed to work better with Apple High Speed SCSI cards than Apple's own driver), you can get in touch with Mr. Cheung at:

*Wing Cheung
4901 Corona Court
Union City, CA 94587*

You may also email Mr. Cheung at:

wing_cheung@compuserve.com

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